THE

MEDICAL AND SURGICAL REPORTER.

No. 864.] PHILADELPHIA, SEPT. 20, 1873. [Vol. XXIX.—No. 12.

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

DR. DIEULAFOY'S ASPIRATOR.

We desire to bring more fully to the notice of our readers the Aspirator invented by Dr. DIEULAFOY, of Paris, and also the method and results of pneumatic aspiration.

Messrs. *Tiemann & Co.*, of New York City, have kindly loaned us the cut which we introduce and which gives a clear idea of the instrument.

We commence by quoting some remarks on the history, and a description of the Aspirator, from an article in the *New York Medical Journal*, by Dr. James L. Little.

"The Pneumatic Aspirator has been in use in Paris for the past three years. Its invention is claimed by Dr. Dieulafoy, and also by Dr. Potain, of Paris, both having constructed instruments called by their respective names.

"Dr. Protheroe Smith, of London, also claims to be the originator, which claim he sets forth in the *Lancet* of July 11, 1870.

"These instruments, however, are the same in principle, but differ somewhat in their construction.

"The principle involved in this instrument, that of removing fluids from cavities by means of capillary tubes assisted by a suction-pump, so as not to leave an open wound or admit air, has been in use in this country for many years.

"Dr. Bowditch, of Massachusetts, published a paper in the *American Journal of Medical Sciences* in 1852, on the operation of paracentesis thoracis, in which he advocated the puncture of the thoracic cavity with a very small exploring needle about the size of Dieulafoy's No. 3 capillary trocar, and the removal of the fluid by means of a syringe very similar in its construction to the smaller aspirator of Dieulafoy. The principle is the same. The wound thus made being so small, there is no danger of the entrance of air, and no fear of leaving a fistulous opening. He reports fifty cases in which this operation was performed, without any evil results.

"Dr. T. G. Thomas, of this city, has also for many years used a small capillary trocar with a syringe attached, for the purpose of withdrawing fluids from abdominal tumors, to assist in diagnosis.

"But, if the principle is not new, we certainly have to thank Dr. Dieulafoy for constructing an instrument which for convenience and safety has not been excelled, and contributing to popularize the operation, thus extending its usefulness.

"The accompanying woodcut shows Dieulafoy's larger aspirator, which is now made by Messrs. Tiemann & Co., of this city.

"This instrument consists of a glass cylinder, H, about 7 inches in height and 2 in diameter, with a tight-fitting piston. The cylinder is partly covered with a casing of German silver, nickel-plated. In front is a graduated scale, showing the amount of contained fluid in grammes, the gramme in this case being used as a measure of capacity and not of weight, each gramme being equal to the space occupied by a cubic centimetre of water, at the temperature of 39.2° Fahr. The cylinder holds 145 grammes, equal to nearly 4 fluid ounces.

"The piston B is raised or lowered by turn-

ing the handle A. Near the bottom of the cylinder are two taps with stop-cocks, D and E. To these are fitted two rubber tubes, as seen in the cut.

"To the extremity of the one connected with D a capillary trocar may be attached. About four inches from this end of the tube is inserted a piece of glass tubing about three inches in length, so as to allow the fluid to be seen passing to the cylinder. This is not shown in the wood-cut.

"The contents of the cylinder are discharged through the rubber tube attached to the tap E.

"The capillary tubes, or trocars as they are called, represented below the instrument, are six in number, sharp-pointed, and of different sizes, the smallest being about the calibre of the tube of the hypodermic syringe, or one-third of a millimetre in diameter, and the largest one and a half millimetre, and all of them four inches in length.

"In addition to these tubes there should be two or three small blunt canulas with trocars, and a detachable handle, so that when the trocar is withdrawn, the canula may be attached to the instrument.

"The manner of using the pneumatic aspirator is as follows:—

"The instrument is first prepared by attaching the rubber tubes to the taps D and E. After selecting the capillary trocar, it is to be connected to the tube attached to the tap D, as represented in the cut. The extremity of the tube G should be placed in a basin, to receive the contents of the cylinder.

"Closing the stop-cocks D and E, the piston is raised by turning the handle A, and is retained in position by the spring C. In this way nearly a perfect vacuum is obtained. The capillary trocar is then introduced with a rotary motion into the part from which the fluid is to be drawn. The stop-cock D is then opened, and the fluid rushes into the cylinder, which, when full, is emptied by closing stop-cock D and opening E, pulling out spring C, and lowering the piston. When this is done, both stop-cocks are again closed, and another aspiration made in the same manner.

"The following practical points should be attended to in using this instrument:—

"1. Be sure that your instrument is in perfect order, that the trocars and tubes are pervious, that the stop-cocks and piston work easily and without leakage.

"2. Oil the needles or trocars before using.

"3. Combine rotation with pressure in introducing the trocar, holding it between the index-finger and the thumb, and introduce slowly, so as to injure the tissues as little as possible.

"Local anæsthesia may be used at the point of puncture if desired. A small nick in the integument, made with the scalpel, will facilitate the introduction of the trocar.

"4. Remove the trocar slowly, and keep up the aspiration during its removal. This prevents the escape of any of the fluid which may remain in the trocar. This is always to be borne in mind whenever the peritoneum is perforated.

"5. After using, carefully wash out the instrument and tubes, and insert fine wire into the sharp-pointed trocar or canula before putting it away.

"6. It is well occasionally to unscrew the top of the cylinder and pour in about half an ounce of sweet oil. This will keep the piston in good order.

"This instrument has been used extensively in Paris by Drs. Dieulafoy, Watelet, Potain, and others, for removing fluids from the pleural cavity in cases of hydrothorax or

empyema; from the cranial cavity in cases of hydrocephalus; from the knee-joint in cases of synovitis; for removing pus from abscesses; for removing gas and the fluid contents of the intestines in cases of strangulated hernia, and thus allowing the gut to be reduced by taxis; also in diagnosticating hydatids and abscesses of the liver and tumors of the abdomen; and, lastly, it has been used for puncturing the bladder above the pubes in retention of urine."

An editorial in the *British Medical Journal*, August 2d, 1873, says:—

"M. Dieulafoy declares that no fluid is too thick to be thus drawn through the fine aspiratory needles, and no part of the body too delicate to be thus operated on. 'I have,' he says, 'thrust these needles into almost every part of the body; into the joints, the liver, the spleen, the bladder, the intestines, the lungs, and the meninges; and I can affirm (and a great number of observers affirm with me) that we have never seen consecutive accidents.' The absolute harmlessness of the aspiratory punctures is what M. Dieulafoy repeatedly insists on throughout his book, and he supports his assertion by a great number of facts.

"His collection of cases is most interesting; and the benefits resulting from this extremely simple and natural mode of procedure are great and indisputable. He records cases in which aspiration was used in the diagnosis and treatment of hydatid cysts of the liver, retention of urine, poisoning, ovarian cysts, hydrocephalus, spina bifida, strangulated hernia, effusions into the pericardium, pleurisy, hydarthrosis, effusions into the serous bursæ, hydrocele of the tunica vaginalis, ascites, abscesses, adenitis, and suppurating buboes.

"In the treatment of hydatid cysts of the liver, retention of urine, strangulated hernia, hydarthrosis, and pleurisy, aspiration has proved of great service. M. Dieulafoy gives seven cases of hydatid cysts and one of abscess of the liver cured by aspiration. In retention of urine the success of this mode of treatment is most marked. M. Dieulafoy reports eighteen cases of retention, arising from a variety of causes, hypertrophy of the prostate, stricture, cancer, injury; and of these thirteen recovered by simply puncturing the distended bladder with the aspiratory needle. In some cases one puncture was sufficient to give relief, and to inaugurate a change in the condition of the patient; in others, repeated punctures at intervals were necessary; and in one case as many as twenty-three punctures were performed without producing any accident. The relief in all cases, even in those which aspiration was unable to cure, was immediate. Twenty-seven cases of strangulated hernia are reported at length. Of these, twenty were cured by aspiration alone; four by the additional aid of kelotomy; and in three, aspiration was insufficient, and the patient died.

"Of the complete harmlessness of aspiratory puncture in hydarthrosis, M. Dieulafoy is quite assured, and in support of this view he brings forward fifty cases of hydarthrosis treated and cured by aspiration. The cases of pleurisy, and the method recommended for cleansing the pleura, are instructive. In the treatment of hydrocephalous and ovarian cysts, aspiration has not proved successful. In cases of poisoning it is almost as yet untried. One interesting case is reported by M. Dieulafoy, in which an infant, six hours old, was poisoned by a dessert-spoonful of laudanum, and from whose stomach the poison was extracted before it had taken fatal effect by means of the aspirator.

Dr. LITTLE used it successfully in a case of distended bladder. His closing remarks on the use of the instrument in general, and in such cases in particular, are as follows:—

"1. The capillary puncture is an operation entirely free from danger.

"2. In all cases it should be substituted for the ordinary hypogastric puncture.

"3. The bladder may be punctured three or four times a day, and replace catheterism in cases where that operation is impossible.

"Now, admitting that the puncture with the capillary trocar is harmless, and, as far as we know of its use in Paris, England, and in this city, no accident has yet resulted from its use, every practical surgeon will see at once the invaluable aid it will furnish in this department of surgery alone.

"In cases of stricture, where retention has come on from a night's debauch, and where we find so much difficulty and lose so much precious time in endeavoring to pass the filiform bougie so as to relieve the patient from his retention, the surgeon may with safety resort to this instrument and thus relieve the patient, and afterward take his time in finding his way through the contracted urethra; and in many cases this will be facilitated by the subsidence of the con-

gestion of the mucous membrane by rest and antiphlogistic treatment.

"In conclusion, I would suggest that, in using this instrument for puncture of the bladder, the following rules should be observed:—

"1. The patient should lie on his back, and, if the bladder is not much distended, the operation will be facilitated by slightly elevating the patient's hips by means of a pillow placed beneath them.

"2. The punctures should be made on or near the median line, from one inch to one inch and a half above the pubes, and should be made each time in a different place. In the case described, the punctures were about a line apart, and extended over an area about half an inch in diameter. Mr. Watelet recommends the No. 2 capillary trocar, but in cases where cystitis exists and the urine is loaded with pus, mucus, or the phosphates, one of the larger trocars may be used with safety.

"3. The bladder may, when necessary, be washed out by filling the cylinder with water from the basin, and reversing the action of the instrument, without withdrawing the trocar from the bladder."

In his recent address, before the British Medical Association, on Surgery, Dr. John Wood says:—

"Among the recent innovations in operative surgery, I have barely time to notice one which 'l'audace' of the French school is applying in a manner which those who have reached the rest and be thankful state in surgery may call daring, if not rash. I refer to the use of the *aspirateur* of M. Dieulafoy to relieve distention by puncture of the bladder in cases of retention of urine, and of the intestine in abdominal obstruction, and in joints affected with hydrops articuli, and even to evacuate the fluid contents in strangulated hernia. In the first named of these conditions, it is no doubt valuable as an adjunct to other remedies. In intestinal obstruction, Demarquay has not found it of much practical use, because of the rapid reformation of flatus, which quite corresponds with my own experience of puncture in desperate cases without the aspirator. In the puncture of joints and in the cure of hydatids, I have used it, but not frequently enough to pronounce upon its capabilities. I have not yet arrived at the measure of audacity to use it in strangulated hernia. It scarcely agrees with my own impression as to the importance of avoiding any injury to the bowel in dealing with strangulated or other hernia. The propriety and the limits of the use of this instrument are still *sub judice*, and we must wait for more bad consequences following its employment than those which have already occurred, before we can pronounce fairly upon its merits. I am glad to see that the ingenious inventor is to give us a demonstration of the use of this instrument in surgery."

A CASE OF PUERPERAL TETANUS.

BY T. CURTIS SMITH, M. D.,
Of Middleport, O.

On the evening of the 9th of July, 1873, I was called to Mrs. ——, the messenger stating that she was having convulsions and suffering some pain. She was a lady of very delicate constitution, having been an invalid since her first accouchment, twelve years ago, the suffering having begun in metritis, which was badly managed. After her second confinement, nine years ago, she has remained in bed fully half the time. She came first under my care in the summer of 1866, at which time she was suffering from chronic endometritis, and great general and nervous debility. Was again confined in December, 1871, from which she had a good getting up for her. The last confinement occurred on the 10th of July, 1873. She was naturally delicate, of nervous temperament, always despondent, and apparently depressed in mind and body. During her last pregnancy she often said she could never live through it, and made all arrangements for her family after her death.

On arriving at the house, on the 9th inst., I observed that she was having short, quick convulsive attacks, the jaws closing firmly for a minute, the head being thrown back, and great pain in the back of the neck, the extremities rigid. The least move of the clothing, heavy walking, or shutting the door, and even placing my finger on the wrist, would cause one of the convulsions. The intellect was clear all the time, pupils dilated, skin about normal, bowels regular, urine free, tongue lightly furred, otherwise normal. The pains I soon learned were mostly from very slight uterine contraction, but not true labor pains; the pulse, I should have stated, was 1 0, feeble, but regular. I gave her opium, grs. ij, which controlled the convulsive action and allayed all pain,

though it had to be repeated once through the night. She slept a part of the time very quietly, but was nervous when awake. In the morning I was called about 7 A. M. She had been slightly convulsed just before my arrival, but quiet now. Examination showed labor as having begun. There was no more convulsive action after this till several hours after giving birth to the child. The contractions, however, were feeble till near 1 P. M., when they came on actively and perfectly normal. At 3½ P M. labor was completed by giving birth to a seven-pound infant, female. Secundines removed without trouble, uterus well contracted, no hemorrhage during or after labor. As she was feeble stimulants were used throughout the entire day, but not to the point of producing cerebral excitement. I left the house about 5 P. M., patient comfortable, but feeble. At 7 P. M. was called, and found her strongly convulsed. The jaws were firmly set, extremities rigid, and there was very well marked opisthotonos, pulse 130, irregular and weak, intellect perfectly clear, pupils dilated, skin moist. The convulsive action was short, but would be repeated upon any very slight movement or sudden noise, moving the clothing or rapid fanning. Found uterus well contracted, and no evidence of hemorrhage. I repeated the opium, and directed it to be continued from one to two hours apart, as required, and the stimulus to be increased. At 8 P. M. apparently considerably better. Treatment continued. At 11 P. M. same. About 12, midnight, a sharp thunder storm came up, and the patient would have a severe convulsion at every flash of lightning or roar of thunder. In these the jaws would set firmly and extremities rigid, the opisthotonos so strongly marked that the weight rested on the head and feet, the spine being strongly curved backward. Intellect clear to the very last. At 1 P. M. she expired in a severe tetanoid convulsion. There had not been in this case any anasarca or scant secretion of urine, as is often the case before puerperal eclampsia. The spasmodic muscular action was regular and the same each time, differing only in severity, being clearly tetanic in character. The mental faculties were remarkably clear throughout, and no turgescence of force occurred at any time. The urine was not tested.

In ordinary puerperal eclampsia we expect a different type of symptoms. We often have the anasarca, and scant urine, and vertigo, all absent here. The spasmodic muscular action is also very irregular in its approach, and does not usually affect the spinal more than other muscles. The jaws are often set, but there are also many irregular contortions and facial grimaces, with wild look, rolling of eyes, foaming at mouth, congestion of face, throbbing carotids and raised jugulars. In this instance the jaws were set, but none of the other symptoms were present. The mental faculties, too, in ordinary eclampsia are usually lost during the convulsion, and the patient is totally or partially unconscious. In this case the reverse prevailed. In short, there were but very few symptoms of puerperal eclampsia, while every symptom necessary to constitute a case of tetanus was present.

Editorial Department.

Periscope.

On Apomorphine.

This preparation is described as follows in the London *Medical Record*:—

Dr. Matthiessen converted morphine into a new base, which he termed apomorphine. He obtained it by heating morphine in a closed tube for several hours at 140° to 150°, with excess of hydrochloric acid. According to Dr. Matthiessen, the product is separated from the acid solution, the solution is diluted with water, precipitated by excess of bicarbonate of soda, and afterwards by ether or chloroform. If the solution be agitated with a little concentrated hydrochloric acid, the sides of the vessel become covered with crystals of chloride of apomorphine. The chloride should be recrystallized, and if it be desired to obtain the base itself, it is necessary to precipitate with bicarbonate of soda. Apomorphine differs from morphine in that it contains less water, is oxidized by air, and turns green.

According to Dr. Matthiessen, 1.0 gr. of

apomorphine administered internally or by the subcutaneous method produces vomiting in about ten minutes. This vomiting is followed by a state of depression which soon passes away without producing any ill effects.

This interesting derivative of morphine has recently been submitted to a physiological examination by M. V. Liebert. His researches essentially confirm the opinions held in England with regard to the physiological properties of the new base. The English product is not a pure crystalline mass, it is in the form of greenish grey powder with occasionally ill-defined microscopic crystals; it forms with water a colorless solution, which upon standing for some hours turns an emerald green. If a drop of this solution is allowed to evaporate upon the object glass of the microscope, there appear little groups of crystals, colorless at first, which turn green in a few minutes. The mass is equally soluble in alcohol, and the concentrated solution deposits crystals which rapidly become green. M. Liebert has observed that the blood-red color which is obtained by the addition of concentrated nitric acid does not disappear under the influence of heat, but on the contrary becomes more marked. Hydrochloric acid produces a brownish red color.

Chloride of apomorphine solution is colored a brownish green by caustic alkalies; when concentrated sulphuric acid is added, the liquid takes a rose tint, and afterwards loses its color. In the preparation of apomorphine, there remains in the tube, where morphine has been heated with hydrochloric acid, a deposit which is formed at the bottom of the liquid, and to dissolve which a large quantity of water is necessary.

Dr. Matthiessen recommended the use of hydrochloric acid containing 35 per cent. gaseous acid, but M. Liebert found that there resulted a partial decomposition of the salt of apomorphine formed, and it was more advantageous to use acid at 25 per cent. One disadvantage in the method of preparing this new base is the large quantity of water requisite to dissolve the deposit in the tube and to dilute the acid, and, on the other hand, the large quantity of bicarbonate of soda necessary to precipitate the base.

Apomorphine is slightly soluble in water.

M. Liebert has not been able to recrystallize the chloride of amorphine in the manner indicated by Dr. Matthiessen; evaporation gives only a concentrated alcoholic solution of the chloride. He obtained also colorless crystals mingled with the brown mass. *En resume*, it results that from the moment of its formation the new base is decomposed with facility, that even in the necessary operations for its preparation it is partially decomposed, and that, if a state of purity be attained, the composition is very variable. Its preparation is then a difficult operation, which gives only a small yield of the pure substance (5 per cent. of the morphine employed).

M. Liebert finds no difference between the physiological action of crystalline apomorphine and that of the amorphous chloride. It would appear consequently better in therapeutic practice to employ the amorphous chloride precipitated from the etherial solution, without seeking to recrystallize it.

Position in Labor.

Dr. J. W. SMITH has an article on this subject in the Chicago *Medical Examiner*, from which we make the following extract:

The philosophy of position is based upon gravity and muscular action, including contraction and relaxation. The key-note, or axiom, so to speak, of correct position, is the fact that the fundus of the gravid uterus, in its normal state, is *movable* to a certain extent in nearly all cases, when not obstructed. The field for the application of this principle is almost unlimited, and will vary to some extent in every individual case.

HOW TO DETERMINE THE PROPER POSITION.

The directions how to decide as to the proper position had better be explicit; and to save time and space we will avoid all technicalities and proceed at once to explain how it is possible to decide upon the position in which the parturient powers will most quickly, easily and safely overcome the natural resistance. External abdominal examination often aids in diagnosis, and should not be omitted in doubtful cases, but is not usually as reliable as that per vaginum.

Suppose that we cannot tell the exact presentation, or that we can, and in either case that the presenting part is found to impinge or press most strongly upon or towards the *left* side of the pelvis, and even while the os does sometimes point, so to speak, to the *right* side of the median line of the pelvis. These two things occurring together may be said to be contradictory, and they do appear so at first observation, that is, the os inclining to the right, and the bulk of the fœtus to the left side of the pelvis. To decide accurately, before or after the full dilatation of the uterus, a gentle upward pressure of the fœtus by the finger, between pains, will often be necessary. The finger can then be passed from side to side, and thus determine *which side of the pelvis is most filled* or *pressed upon by the presenting part*. If, as supposed, the presenting portion presses most directly upon, or to the left side of, the pelvis, and, as stated, independently of the position of the os, that side, upon the left, is the position in which it will uniformly be found in practice best to place the patient; if to the right, the position should be upon that side. This is very easy to remember.

When placed upon the side, as indicated, it will often make all difference *how* the woman is placed, at least during a portion of the time, occasional changes of position being admissible, and sometimes necessary in the earlier stages to prevent too great fatigue or disgust with any one position. The woman's head should be low, the fundus moving more freely by gravity when it is so;

the thighs and knees flexed; the feet supported, if preferred; and the arm that is under side placed either wholly back of the body, or, which is often easier, the elbow sharply flexed, and only the hand allowed to rest in front of the chest. She will then be partly upon her face, as in the position for using Sim's speculum, and cannot easily turn upon her back, as otherwise she would be likely to do, and thus defeat the full advantage of position. The knees, in the latter stages of labor, had better be supported by an assistant, or by a pillow or quilt firmly rolled together and placed between them.

In many cases of tedious labor, after the *proper* position is assumed, such position, and a single pain or two, if strong, will often bring the fœtus into the proper axis of the pelvis, and thus rapidly complete the labor. When the effect is not so rapid, and some other position is preferred, it can be assumed without detriment, after the cause of delay has been overcome.

ABDOMINAL SUPPORT.

In case of obliquity, pendulous abdomen, uterine inertia, etc., a wide bandage or support is often a great help, and sometimes necessary, in addition to the best position. It can be readily extemporized, and while it may not be as convenient as some specially designed, with me it has answered admirably. It should be about two yards in length, from twelve to eighteen inches wide, and made of strong material. Two towels can be sewed together, or a sheet torn lengthwise and doubled once in the same direction.

HOW TO USE IT.

In lateral obliquity it is always best, and sometimes in other cases, to place the woman upon her side, as already described, with the centre of the bandage passed evenly across the abdominal prominence, with one end carried under and the other over, and both behind the patient, so that the two ends can be firmly grasped together by one or both hands, usually best by the physician, and steady pressure can then be made across and around the abdomen during each pain. To make such pressure reliable, will require the counter support of the back at the same time, and this can often be made the most certainly and easily by the foot or knee of the person holding the bandage, a pillow or other soft support being first placed against the back, and, if room, the person sitting upon or standing at the side of the bed, while the abdominal pressure is applied by the bandage. The two forces can thus be made to act together and keep the woman in the desired position, while varying the amount and direction of the support, as is indicated. The bandage should be seized near the ends, to prevent too great compression of the sides of the woman. To aid sufficiently in some cases, may require the application of the bandage continuously for a length of time, or only occasionally and during a few pains. Posterior obliquity, as in pendulous abdomen, can sometimes be corrected by dorsal position, elevation of the hips, and external pressure by the hands; but experience teaches that the side position and bandage is often most effectual in those cases. Uterine inertia can sometimes be overcome by elevating the shoulders and pressure with the hands, but the kneeling or standing posture alone is sometimes sufficient and even preferable, the patient to be supported under the arms by two assistants during each pain.

SUMMARY OF DIRECTIONS.

To epitomize or briefly recapitulate the foregoing directions:—Most cases have a lateral obliquity or pressure, so to speak, and if the presenting part crowds upon, or most nearly fills one side of the pelvis, then upon that side is the proper position. If towards the hollow of the sacrum, place the woman upon her back, elevate the hips, and, if necessary, use external pressure. If towards the sacrum, and one side, better place her upon that side, observing the arm is in position; and, if necessary, apply the bandage and support the back. If upon or towards the symphysis pubis, place her in a kneeling and almost horizontal posture, and, if necessary, upon the knees and face for a short time.

Formerly I was partial to the position upon the back, as I thought it easy and convenient, but observation convinced me that the large majority of cases do the best upon one side or the other. It seems to most readily correct and overcome the slight obliquity which often prevents or delays the fœtus from freely entering the pelvis, and sometimes retards or "locks" it in its passage through it. I think the peritoneum is safer when upon the side, even if the labor is quicker, as the strong, voluntary pains, when upon the back, are most likely to cause rupture.

Cases and Method of Skin Grafting.

In a recent number of the *British Medical Journal* a report is given, from the Royal Infirmary of Edinburgh, of Mr. J. BELL'S method of skin grafting.

In procuring portions of skin for grafting, Mr. Bell takes them from some sound part of the patient's body, preferably from the arm. A piece of skin is pinched up by a pair of common catch-forceps, and cut off to the required size with a pair of scissors. This piece is divided into smaller pieces about the size of a grain of rice, and is planted among the granulations of the ulcer by means of a probe, one small piece being sufficient for about a square inch of surface. Over each of the grafts is laid a piece of gutta-percha tissue, half a square inch in size, previously dipped in some antiseptic solution. The ulcer is then covered by two layers of similar pieces of gutta-percha tissue placed on each other in an imbricated manner, and over these a dressing of antiseptic gauze and a bandage. This dressing is not removed for two or three days, when it is replaced as at first. To insure success before grafting, the ulcers should be free

from fœtor, and the dressings should be changed under spray. The advantages of this method of grafting are alleged to be, that no special apparatus is required; that it is extremely simple; and that, by the movement of the pieces of gutta-percha on each other, the grafts are protected from all sources of disturbance.

The following four cases are selected as examples of the application of this method of dressing.

Case 1.—Mrs. W., aged 53, had scirrhus tumor removed from the left breast on May 15th, 1872. The lower flap of skin sloughed away, leaving a weak ulcer of the size of a man's hand. On June 17th four grafts were applied. The ulcer was healed on July 13th.

Case 2.—Robina R., aged 19, was admitted on August 21st, 1872, suffering from a large ulcer extending from the knee to the ankle. She was very weak and anæmic, and the ulcers were very fœtid. Charcoal poultices were applied for a few days, after which gauze dressing was applied. Grafts were applied on September 27th. The ulcer was healed on November 7th.

Case 3.—Frances P., aged 37, was admitted on January 11th, 1873, with ulcers on both legs. The ulcer on the left leg measured four by four inches, that on the right was about half as large. Solution of chloride of zinc (forty grains to an ounce) was applied, and then antiseptic dressing. Grafts were applied to the ulcer on the left leg on January 23d. She was discharged cured on February 6th. The ulcer which was grafted, although twice the size of the other, was healed first.

Case 4.—John B., aged 61, was admitted on January 16th, 1873, with a callous ulcer, measuring seven by four inches, on his left foot and ankle. He had suffered from this ulcer for fourteen years. A blister was applied to the edges, and the sore was afterwards dressed antiseptically. Grafts were applied on February 14th. The grafts did not take root from the unhealthy condition of the granulations. Grafts were again applied on March 14th. The ulcer healed rapidly, cicatrizing from the grafts, and was healed on April 25th.

On Contractions of the Extremities.

The eminent pædiatrist, Dr. M. BUCHUT, of Paris, says, in a lecture translated in the *London Medical Record*:—

Besides cerebral contractions, and besides those produced by meningitis, there is a *tetanic* or essential contraction of the extremities. This affection is well called, on account of its likeness at first sight to tetanus. It comes on in children or in adults, either in the hands or in the feet, and is called essential because the lesion causing it is not understood. It is, according to M. Buchut, a spinal hyperæmia; but let us leave alone the question of its nature, and occupy ourselves only with the phenomena.

We meet with this affection in the course of certain acute diseases, in the course of lactation in nurses, at the end of lactation, when the women become nervous, during convalescence in cholera, whilst we notice the stiffness of the feet and hands, against which the experimental use of metallic cloth has been made. This tetanic is also noticed in typhoid fever.

We have, also, a contraction which is connected with no acute affection, and it is of this last that I desire to speak at present.

On Saturday this child, whom you all saw washing its hands, was seized all at once with contraction. The hands became closed, red and swollen. Note that this is the first time that the patient has exhibited this phenomenon. She does not present any appearance of approaching puberty, and the mammæ are rudimentary. She has no loss of consciousness, no epileptiform, or epileptic, or hysterical seizures. Sometimes she mentions feeling stifled, but there is no sensation of œsophagisme (globus); she neither cries nor laughs without cause, so that there is nothing hysterical. Thus the contraction is seen in a child who has had no diseases.

Insensibility is partial, and does not mount higher than the wrists; besides which, we must notice that this contraction or tetanic, does not present its habitual form. In fact, in this case we have the fingers strongly flexed; besides which only one first is attacked, and then there is anæsthesia. These three exceptions also prove the difference which exists between the different kinds of contraction.

We have then to do with a species of hysteria commencing at the age of ten, and which further on takes more or less remarkable appearances.

Against this affection practitioners have employed all the anti spasmodics of the pharmacopœia, all the narcotics, chloroform, chloral, belladonna, musc, etc., and then suddenly a remedy succeeds, of which the mechanism is rather marvelous, but which I explain by physical considerations. This remedy consists in an alloy of brass, which we place on the patient in the form of a chain, or made into stays, rings, and bracelets.

This remedy is not my own, it is due to Dr. Franck. When I was, in 1849, head of Rostau's Clinique, in our cholera ward, we made some experiments on an Alsacian woman; we put bracelets on her arms and her hands opened, but when these were removed, the contraction reappeared; we again replaced them, and the hands again opened.

The skeptics, and those who turn away their head from all new remedies, or those who do not wish to see clearly, have amused themselves, and without reason, with this, which they did not understand nor desire to understand; as to myself, wherever anything good appears, I take it, I make no noise about it, and do not call it miraculous; we had to do with a physical cure.

M. Brunck was despised at one time, was laughed at, for curing anæsthesia by iron and copper, and hysteria by iron. For myself, at that time, I wished to see and try, and

one day anæsthesia of the elbow supervening in a medical student after erysipelas, I took a key, and ran it over the fingers from the wrist to the nails, when sensation returned. Since then I have made a trial with iron, but obtained few results. I have also tried copper on convulsive attacks. Thus, at Comberois, being sent for to see the daughter of a rich bleacher of that town, I made them place on her abdomen the lid of a copper saucepan, with the copper side to her, and she recovered.

A physician ought not to be too skeptical, and ought to believe in such things, and not only in tartarine antimony or ipecacuanha. There is a moral remedy as well as a physical one sometimes. We ought not to reject the part of an influence which certain agents possess, although they seem miraculous.

I sum up by saying that this affection which I have been lecturing on is a nervous one, curable by all kinds of medicines, and sometimes without any. What I have done this morning I have done for some twenty years, and we have to do simply with an electric current; as to its miraculous action, I have never believed in it, nor do I now. We have to do with the action of a metal on the skin, which disengages electricity.

Phosphorus in Neuralgia.

In *The Practitioner*, July, 1873, Dr. J. A. Thompson has an article on phosphorus in neuralgia. He records eighteen cases, and arranges them in three classes: "acute primary attacks; acute recurrent attacks; and chronic cases." Six cases occur in each class. In the first class the ages ranged between twenty-five and forty-six; in the second between thirty and sixty; in the third between twenty-four and forty. Some of the patients suffered from trigeminal, some from cervico-occipital, some from cervico-brachial neuralgia; and one in the second class from sciatica. All the cases in the first two classes were cured. Of the third class, three were cured (one patient had been afflicted sixteen years without a week's freedom from pain); two (both consumptive), were relieved; and one uncomplicated case, a woman, aged forty, with affection of the fifth nerve, of ten months' duration, was unbenefited, although she was treated for fifteen days. As might be expected, the chronic cases take longest to cure, but, in all the cases benefited, relief followed the first few doses.

The author employs large doses. He says, "To prescribe less than one-twentieth of a grain in the first place is to render its therapeutic action apparently variable or uncertain." He now invariably begins with one-twelfth of a grain every four hours.

He has employed phosphorus in various combinations, dissolved in oil, in ether, in chloroform, in spirit, and prefers a tincture made by dissolving the phosphorus in absolute alcohol with the assistance of heat. He says, "The most convenient proportion for dispensing is, phosphorus one grain; absolute alcohol three drachms. This mixture will, I know, retain its powers for six weeks." The following is his method of employing it: Tincture of phosphorus, three drachms; rectified spirit, two drachms; spirits of peppermint, half a drachm; water to six ounces.

This mixture, being unstable, should be compounded every day. The author prefers the above form to capsules or pills.

[Dr. PERCY'S alkaloidal form of phosphorus, described in the last volume of the *Transactions American Medical Association*, 1872, would probably answer better.—EDS. REPORTER.]

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

——Appropriate to the cholera alarm which is prevailing in various parts of our country is the republication from the *Medical Times* of an essay on Epidemic or Malignant Cholera, by Prof. Alfred Stillé. Philadelphia, J. B. Lippincott & Co.

——Several recent improvements in ophthalmic surgery relating to the treatment of strabismus, polyopia, iritis, etc., are discussed in an essay read before the Kentucky State Medical Society, by Dr. D. S. Reynolds. Louisville, John P. Morton & Co.

——Three cases of Imperforate Anus are described, with remarks by Dr. J. B. POOLEY, Yonkers, New York, in a reprint from the *American Journal of Obstetrics*.

The same author has also treated the subject of Naevus in a reprint from the New York *Medical Journal*, D. Appleton & Co., New York; and a case of epithelioma of the cheek and lower eyelid, with its removal and blepharoplasty, reprinted from the Archives of Opthalmology and Otology. New York, Wm. Wood & Co.

——Law and Intelligence in Nature, and the Improvement of the Race According to Law, is the subject of an interesting address delivered before the Michigan State Medical Society last June, by the President, Dr. A. B. Palmer, of Ann Arbor, Michigan.

——The prize essay of the Alumni Association of the College of Physicians and Surgeons, New York, was Dr. Andrew H. Smith's paper on The Effects of High Atmospheric Pressure, including the Caisson Disease. It is a valuable essay, replete with original observation.

——Varicocele and its Radical Cure, a reprint from the New York *Medical Journal*, by Dr. Octavius A. White, will be found a suggestive addition to the surgery of this common lesion. D. Appleton & Co.

BOOK NOTICES.

The Hand-Book for Midwives. By Henry Fly Smith, B.A., M.B., etc. Boston, James Campbell. 1 vol., 12mo, pp. 158. For sale by Lindsay & Blakiston. Price $1.75.

This is an excellent compendium of instruction for the midwife, written in familiar language, well arranged in its parts, sufficiently illustrated, and handsomely printed. A general anatomical sketch of the human body is given, and an exact description of the parts concerned in conception, pregnancy and delivery. The management of natural labor and the puerperal condition are minutely described. The signs which demand the attention of the professional accoucheur are noted, and in the fourth part several useful chapters are given on the management of the patient during the lying-in week, the proper care of the infant, and the various symptoms of diseases incident to lying-in which demand medical treatment. The general study of the book among monthly nurses would greatly aid them in the performance of their duties.

A Treatise on General Pathology and its Relation to Practical Medicine. By Charles L. Carter, M.D., etc. St. Louis, Geo. Knapp & Co., 1867.

This work, which we have occasion to notice somewhat late, treats of the etiology and elements of disease, the pathological and quantitative changes in the blood, their causes and results, the idiopathic fevers, the peculiarly blood diseases, their general therapeutics and allied topics.

Six Months under the Red Cross with the French Army. By George Halstead Borland, M.D. Ex-Chirugien de l'Armée Française. Cincinnati, Robert Clarke & Co., 1873. 1 vol., 8vo, pp. 232. Price $1.50.

The author was an Assistant Surgeon Major in the Army of the Rhine, and took a share in the siege of Metz, and saw much of active service in the disastrous Summer of 1872. The notes taken on the spot, in camp, in battle, in hospital, are here published without pretence to effect, and have about them the vividness and freshness which mere artistic polishing could never add. They have a historical value as a narrative of facts, and an absorbing interest to the reader who delights to be stirred by the emotions of danger and adventure.

As written by a medical man who always felt uppermost the duties of his profession and position, they have an increased charm to members of our profession, especially perhaps to those of us who are no strangers to the tented field, and who know by experience the sights and sensations of fields of carnage. We recommend this work heartily as one that will more than repay perusal, both in pleasure and profitable information.

Clinical Electro-Therapeutics, Medical and Surgical. A Hand-book for Physicians in the Treatment of Nervous and other Diseases. By Allan McLane Hamilton, M.D., etc. With numerous illustrations. New York, D. Appleton & Co., 1873. Cloth, 8vo, pp. 185. For sale by J. B. Lippincott & Co.

This book is set forth by its author without any pretence to advancing novelties, but as a "compilation of well-tried measures and important cases," and as "a simple guide for the general practitioner." The end we think is successfully attained, and to those who wish such a guide, none better in the same compass has recently appeared.

It commences with two chapters on electro-physics, especially the laws of the induced current. From this the writer passes to electro-physiology, especially the phenomena of the two currents in their action on animal tissue. This is followed by general electro-therapeutics when, after some general considerations, the uses of galvanization and faradization are detailed, and their advantages in treatment and diagnosis explained. The remainder of the book, about two-thirds of the whole volume, is given up to electro-therapeutics, being the employment of this agent in paralysis, hyperæsthesia, convulsive diseases, tumors, etc. Electrolysis and galvanocausty each receive a chapter. The appendix explains the management of batteries and apparatus.

The illustrations are abundant, the paper of fine quality, and the print clear, so that the manufacture of the book is throughout satisfactory.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SEPT. 20, 1873.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical*, *brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

☞ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

ANTISEPTIC SURGERY.

The doctrine so earnestly advocated by Professor LISTER and Dr. SANSOM is one which has rightly attracted the earnest attention of surgeons within the last few years.

It was originally developed by LE MAIRE, in 1860 and 1865, in the use of coal tar and its derivatives in dressing wounds. Professor LISTER, in 1870, however, was the first to connect it definitely with the theory of atmospheric germs, and to elevate it into a distinct method in surgery. It is now undergoing a careful test in the clinical wards of Europe and this country, and its novelty, as well as its alleged success, demand for it an unusual degree of attention on the part of the profession.

In this connection we are permitted to make an interesting extract from a private letter from Dr. S. MARKS, of Milwaukie, kindly placed at our disposal. He writes of Glasgow:—

"I visited the Royal Infirmary, the largest hospital in the city, and was kindly received by the attending physicians and surgeons. The buildings are of stone, divided into thirty-two wards, and have capacity for six hundred and eighty patients. There are five physicians, five surgeons, and one physician who devotes his entire time to the treatment of fevers, besides the consulting physicians and surgeons. The wards are clean, well lighted and ventilated, and entirely free from that smell we often find in large hospitals; they are heated by means of open grates, located on either side of a large chimney in the centre of the ward.

"The antiseptic treatment is well thought of in this institution, and thoroughly carried out. Open ulcers are washed with a solution of carbolic acid, strength one to forty, and allowed to dry in the sun; if a cloudy day, before the fire. All the cases of this kind that I saw seemed to be doing well.

"I noticed that the long, straight, wood splint is mostly used for dressing simple fractures of the femur.

"Fractures of the leg and arm are dressed with wood splints, well padded with bran bags.

"At Edinburgh I visited the Royal Infirmary (everything in this country has *a royal prefix*) and was introduced to Prof. JOS. BELL, lecturer on surgery, and one of the surgeons to the Infirmary. I accompanied him, with several other medical men from America, through his wards. He is a pleasant speaker, and had many interesting cases to show us. Among them was a case where the ends of bones entering into the formation of the knee-joint had been excised under the carbolic acid spray, and the wound entirely healed without the discharge of a drop of pus. The dressing used after the operation was that recommended by LISTER. After passing through Prof. BELL'S wards, I was shown into the operating arena, where stood the great LISTER, the father of antiseptic treatment, who was about to excise a portion of the radius and ulna in a young man. The patient I judged to be about twenty years of age, who, ten months since, fractured the radius, and at the time of the operation, there was not the least union. The parts to be operated upon were kept covered with carbolic acid spray — strength one to a hundred—during the entire operation, which lasted considerably over an hour. The spray was thrown upon the parts by means of a pump attached to an atomizer and worked by one of the students. Every instrument, wire and ligature used in the operation were bathed in the carbolic acid solution, of the above-named strength. The operation was performed with the utmost care in every particular. The wound

was dressed with silk, prepared after LISTER'S formula, for the purpose of excluding the air. Over this, splints were applied and secured by means of a roller, saturated in carbolic acid. Over all, many thicknesses of gauze, also prepared after LISTER'S formula, were applied, and the patient placed in bed. I am aware that many in our section of the country believe carbolic acid has been greatly over-estimated as a remedy in the treatment of wounds after accidents and operations. I for one am not prepared to express an opinion, as I am confident it has not received a fair trial in my hands; at least I have not used it as it is used at this time in Scotland."

The method, in its most recent developments, has also received a careful appreciation in the address in surgery before the last meeting of the British Medical Association, by Mr. JOHN WOOD, Professor of Surgery in King's College, and the evident pains he has taken to form an unbiased opinion will, we know, justify us to our readers in making a pretty long extract from his conclusions in reference to some of the more frequent surgical diseases.

In reference to the method in erysipelas he says:—

"Erysipelas does not seem to be much influenced by antiseptic measures. Such cases as are recorded by M Chédevergue as an instance of the detergent power of alcohol as a topical application, viz., of erysipelas appearing upon the body of a patient, but not at all invading the wound itself, have several times occurred to me, and I dare say to most surgeons; and it proves no more than that erysipelas is a constitutional disease; and that, though usually, like scarlatina, when happening to wounded patients, showing itself first at the wounded part, it does not invariably do so. But when

> 'The life of all the blood
> Is touched corruptibly,'

and pyæmic symptoms force upon us the momentous question, "What should we do to save the patient? and can we do anything?" the answer which was made to me by a surgeon of experience in a case in which the patient got well, "You can do nothing, it is useless trying," would, I suspect, be given by many. In at least four cases of undoubted pyæmic infection, as evidenced by rigors, exacerbations of temperature, secondary abscesses, and lobular pneumonia, the treatment to which I subjected my patients, with little better hopes at first than those which drift into the law of neglect I have alluded to, was attended with success. They were far from being slight cases; and I had not the advantage of being able to send them away to the benefits of purer air and beyond the reach of hospital influences, as so powerfully inculcated by the teaching of Sir James Paget.

"Besides persevering in the antiseptic local treatment, and giving free access of fresh air, I surrounded my patient with a highly antiseptic atmosphere, by placing muslin bags of McDougall's powder around and within the bed, and an abundance about the wound, so that he should both breathe the carbolic and sulphurous vapor, and imbibe it as far as possible through the skin. If the stomach were not feeble or irritable, but able to take abundant nourishment (the primary element of restoration). I also gave three to six grain doses of the sulpho-carbolate of iron, with a view of testing the practice so ably advocated by my friend Dr. Sansom. I took care, as far as possible, not to give the drug soon after nourishment was taken, so as not to interfere with the first stage of digestion, and I discontinued it at once if the appetite fell off, or there was pain after taking it. Three of the cases showed, in from a week to ten days' time, that peculiar slate-colored or olive green coloration of the urine, the cause of which was attributed in a description given by me of one of these cases (in 1868), after a chemical examination by the late Professor Miller, to a modification of the yellow coloring matter of the urine by the action of the carbolic acid upon it. This curious change was first observed, it is said, by Mr. Berkeley Hill, and has been noticed by Drs. Fuller, Stevenson, and Wallace. These four cases completely recovered; but I am bound to say that in some others, not apparently more serious, but perhaps more insidious, the patients died quite as comfortably as under any other plan, whether officious or let-alone in character.

"I believe that cases of recovery frequently occur under other methods, or no methods, and that at least as much depends upon the age and reparative power of the patient, the amount of blood-poison formed or absorbed,

and the general conditions of the atmosphere, as upon any system of treatment whatever."

As a practical method, in treating open wounds he speaks of it as follows:—

"I began it at a time when the hospital was in a good hygienic condition, and the cases for that time did admirably. I had some cases quite equal to any described by Professor Lister himself. I, at the same time, tried the application of dry lint, without any moisture whatever, to the wound, and in many cases, especially in breast cases, the results were also perfect. In one breast case union by adhesion occurred throughout the wound. I also tried the application of the chloride of zinc solution in the manner originated by Mr. De Morgan, and very good results ensued, viz., healing with the formation of little or no pus. After about six months, there came into the hospital a very unfavorable change, and, from inquiries made at the time, I concluded that a similar condition prevailed in most or all the London hospitals. Erysipelas and its concomitant pyæmia began to show themselves, the former not springing up in the hospital itself, but imported with patients. The wounds now began to suppurate more, primary healing was less common, and the erysipelatous blush appeared with blameworthy impartiality in cases treated in all kinds of ways, and almost as impartially on my own antiseptic side of the hospital as on my colleague, Sir William Fergusson's, non-antiseptic side. But this I feel bound to say, that there was little or no putrefaction, as evidenced by the odor, in any of my cases, which my eminent colleague shrewdly attributed to the carbolic smell overpowering all others. Upon this point, however, I must say I did not agree with him. I had one case of amputation of the thigh for a tumor of the lower end of the femur, in a man about 60. I treated it by Lister's method, carefully carried out, and, from beginning to end, there was very little discharge and no putrid or offensive smell whatever; but the wound did not heal, the end of the bone remained unadherent and devoid of granulations, and the man lingered for two months in a declining and emaciated state, and finally succumbed to chronic pyæmia with secondary abscesses in various parts. The occurrence of many other cases similar in character to this has convinced me that the agencies, whatever they are, in pyæmia, operate in the general system, or, if through the atmosphere, in other channels besides the wounded part, as in cases of pyæmic poisoning from deep internal glandular pus deposits and in other acute and chronic tubercular affections.

"Some time afterwards I had a case of compound fracture of the tibia and fibula, with a limited aperture in the skin, in a man nearly 70 years of age. I put it up carefully in Lister's method, carbolic spray, prepared gauze and jacquinette, complete. On dressing it several days afterwards, suppuration was found to have occurred, and the pus had accumulated considerably in the dressings. The treatment was continued, and kept the wound free from all unpleasantness, but still the amount of suppuration was very considerable. There was burrowing of pus along the muscles and bones, and a total want of union. In this case I was ultimately obliged to amputate below the knee. The amputation wound was also treated antiseptically, but still the amount of pus was considerable, and, although from the man's age and reduced condition the progress of healing by granulation was slow, the case did ultimately exceedingly well, and made an excellent stump."

Finally, we shall give his opinions of the advantages of the plan in the treatment of psoas abscess.

"In some cases of psoas abscess treated by Lister's method we had marked success so long as the hospital was healthy. When erysipelas and pyæmia appeared, however, we had others in which the pus in the abscess became putrid and offensive after the first evacuation under the spray and with all the precautions, and I was obliged to make free openings and introduce drainage tubes through which the abscess could be washed out thoroughly with antiseptic. Such cases show that we cannot without danger depart, in the generality of wounds, from the old rule of providing a free exit for all purulent and offensive discharges, and, for the want of this, the exclusion of air is not a sufficient compensation. I cannot, consequently, approve of the plans originated by Baron Larrey and followed by Gosselin, and, more lately, by J. Guerin and Maisonneuve, of "occlusion pneumatique," the amount of resemblance to which, in Lister's method, constitutes, it seems to me, some part of its deficiencies. To a great ex-

tent, this objection also exists to the plan followed during the second siege of Paris, by Alphonse Guerin, of using thick investments of compressed cotton wool after washing the wound with alcohol, and then leaving it, without disturbance or removal of the deeper layers, for periods varying from a fortnight to two months, or even more. This plan for keeping from the wound injurious atmospheric influences seems to have been deduced from Professor Tyndall's experiments upon the purifying results of the cotton filter of Pasteur. It was shown by Hervey that, as used by Guerin, it neither prevented putrefaction and fœtor in the wound, nor the formation of abundance of microzoa therein. Here again, we have instances of the propriety of that regular and systematic inspection of wounds which the practice of hermetically sealing them up prevents us from obtaining."

These various observations will place our readers *au niveau de la situation*, so far as the antiseptic treatment is concerned, at least in its surgical aspect, as judged by observers who have no pet hypothesis to sustain. Our own conclusion is that the results show, on the whole, that in it we have an addition to surgical therapeutics that, as Milton said of his works, "the world will not willingly let die."

Notes and Comments.

Cholera Hints.

IMPURE WATER AND CHOLERA IN INDIA.

Dr. F. Macnamara publishes, in the *Indian Medical Gazette*, a very interesting report on the water supplied from the Calcutta hydrants during 1872. A column added to this report shows the number of deaths from cholera throughout the year. So long as the water remained pure, the death-rate from this disease continued low; but immediately the water supplied by the Calcutta municipal works became very impure, that is to say, from the end of September until the termination of the year, the death-rate from cholera ran up to a figure corresponding to what it used to be, when many of the inhabitants consumed badly filtered river and tank water. The truth appears to be that, from the middle of September, 1872, up to within a very recent date, the drinking water contained a dangerous amount of organic matter, which found its way into the water after the stream had passed through the Pulta filtering works.

Effect of Oxygen and Carbon on Plants.

Professor Joseph Bohm has communicated to the Academy of Sciences of Vienna some curious and interesting observations in vegetable physiology. He has found that young plants produced from seeds germinating in pure oxygen gas of ordinary density speedily die, although they continue to consume oxygen to as great an extent as when they are growing in atmospheric air. The young plants thrive, however, in pure oxygen when the density of the latter is reduced so as to represent only a pressure of about six inches of mercury, or when pure oxygen of ordinary density is mixed with four-fifths of its volume of hydrogen. Professor Bohm has also investigated the action of carbon upon the growth and greenness of plants, and found that an intermixture of only two per cent. of carbonic acid in the air in which plants are growing suffices to retard the formation of green coloring matter (chlorophyl), and that the process is almost or entirely suppressed in an atmosphere containing twenty per cent. of this gas. No germination of seeds took place in an atmosphere consisting of one-half carbonic acid. From his experiments the Professor concludes that either the atmosphere of our planet was much richer in carbonic acid than at present in early geological periods, especially during the formation of coal deposits, or the plants of those periods, in their relation to carbonic acid, must have been very differently constituted from their existing descendants.

Typhoid Fever from Milk.

A severe epidemic of typhoid fever in London recently, led to a careful examination to detect the cause. It was discovered, in the first place, that typhoid fever had recently existed, and, indeed, at the time of inspection did exist, on a farm from which the milk was supplied; and secondly, that the water used for washing the milk-cans and churns was polluted most probably by the privy and farm-yard. In short, they satisfied themselves that enough had been found to account for the contamination of the milk; and in accordance with their recommendations, no milk has since been supplied from this farm.

Seventy-five families are known to have been affected in one or more of their members; and other cases are daily coming to our knowledge. The extensive ramifications of the infection over the country, and the consequent danger, were matters of serious moment. Since the supply of milk from the suspected farm has been stopped, the epidemic has been stayed. The lessons to be deduced from the history of this outbreak from the infection of the milk supply of a large metropolitan dairy appears to us to be these. 1. It is the duty of a milk-vendor who obtains his milk not from his own farms but by contract with farmers, to make sure that the sanitary condition of the farm is good, and to provide for its inspection from time to time by his own agents or by the local medical officer of health. 2. It is his duty to apply to the milk which he supplies under such circumstances not merely the physical tests of the hydrometer and creaming-glass, which can easily be cheated by the practice of skimming the milk of a portion of its cream, and adding about 10 per cent. of warm water, but by a simple chemical test, the estimation of the solids by Wanklyn's method. 3. It is the duty of the sanitary authorities to issue strict directions for the supervision of dairy farms and periodical report thereon. This is now the sixth serious outbreak of fever publicly and officially traced to the infection of milk. It is to be hoped that similar calamities will be prevented in the future.

Handy Method for Hypodermy.

A writer in the *British Medical Journal*, Dr. JOHN M. CROMBIE, writes:—

"In consequence of the dearness and delicacy of the syringe, the hypodermic application of morphia, although by far the most beneficial when the drug has to be continued for any length of time, has not come to be so extensively used as otherwise it would. I have devised a singular and much less expensive method, by coating a fine silk thread with the required quantity of morphia, which, when introduced in the manner of a seton, by means of a fine needle, with the eye close to the point, enables us to deposit the morphia beneath the skin, by slowly drawing the thread through the opening. This suppository has to be dipped in water immediately before application, and as it is passed through, which must be done slowly, a drop or two let fall on the end still to be passed, so as to moisten the morphia. The process does not cause more pain than injection by the syringe, even when the point of the latter is in condition, as only one-eighth of an inch of skin is traversed, and, as it simply requires a needle, does not entail expense, either for purchase or repairs; and, so I should hope, may be the means of extending the benefit of subcutaneous morphia among the poor, for whom the syringe is too dear and too delicate an instrument."

Mydriasis Caused by Syphilis.

The paralysis of the third nerve is not very common in syphilis; but paralysis of the motor branch of the ophthalmic ganglion is still rarer. Drs. Perocchi and Porlezza mention the case of a man aged forty, who, after suffering from syphilis, presented in 1872 great dilatation of the pupil of the right eye. There was no other lesion. Although no syphilitic symptoms were seen, the diagnosis was given as syphilis, and iodide of potassium and iodide of mercury were given. In twelve days the iris was sensitive to light, and the diameter of the pupil was reduced. In a month the cure was perfect.

CORRESPONDENCE.

Discussion on Cancer.

EDS. MED. AND SURG. REPORTER:—

Allow me to make one or two corrections in regard to the correspondence of Dr. Bright. He says, "In your issue of July 19th, there is a communication from Dr. Senn, on Pathology," etc. Now let us turn to the above number of the REPORTER, and we find no communication from Dr. Senn; we find, however, an abstract of the "Proceedings of the Rock River Medical Society," and in this another abstract of an essay on cancer, which Dr. Senn read at said meeting before said Society. This is plain and self-evident.

Moreover, Dr. Bright should remember, that in an *abstract* of any paper we cannot expect to find every why and wherefore ventilated to the utmost, and therefore an abstract will always be somewhat disconnected, which may not be the case in the original. Hence if Dr. Bright did not understand fully our abstract of Dr. Senn's essay, it would have been more suitable to have inquired directly of us.

Again he says, "But from his remedy in black vomit, in yellow fever," etc. This proves that Dr. Bright is not a careful reader of the REPORTER. We never discussed

"yellow fever" in our Society. Let him turn to the REPORTER No. 846 (May 17), and he will find there an abstract of an "Obstetrical case." The patient was suffering from shock and vomited black matter just like "black vomit." This gave rise to a discussion on the nature of "black vomit," and the local action of cantharides, which at that time was postponed to the next meeting of the Society; then these topics were discussed and reported with the proceedings as found in the REPORTER of July 19th.

This is as far as I, as secretary, am concerned in this matter. A. W. LUECK, M.D.
Mayville, Wis.

Pin Swallowing.

EDS. MED. AND SURG. REPORTER:—

Noticing three cases of pin swallowing in your issue of 23d August, reminds me of a child about a year old whom I attended some years ago, who passed, in ten days, twenty-one pins per rectum, both crooked and straight. The child cried a good part of the time, and, for a while afterward suffered with small abscesses, from the size of a pea to that of a marble, all over its head and face. In a few weeks it died of a convulsion, as I presumed, from retention of some of the pin family. A girl of fifteen, acting as nurse, had no doubt put the pins in the child's mouth.

Respectfully,
EDW. VANDERPOEL,
232 West 34th Street.
New York, August 25th, 1873.

NEWS AND MISCELLANY.

Murder of Dr. P. R. Wagenseller.

This sad and shocking event occurred at Selins Grove, Pa., August 16th. Dr. Wagenseller was an old subscriber and contributor to the REPORTER, and a most worthy man. The circumstances under which this outrage was committed were the following: Dr. Wagenseller being informed that his hired man was intoxicated at the Keystone, repaired thither with a view to induce him to go home to his family. Having found him in company with Wenrich, a blacksmith, who was known to have furnished him with liquor on former occasions, he accused Wenrich of having furnished it for him on this occasion. This Wenrich denied in the most insulting manner. The Doctor reproved him for the insult offered, with the request that the language should not again be repeated. Wenrich reiterated his remarks with still greater insult. It is rumored that thereupon the Doctor struck Wenrich, but from the testimony elicited before the Coroner's inquest there is no evidence to that effect. Be this as it may, it is certain that there and then Dr. W. received a fatal stab by the hand of Wenrich, in the abdomen, with a large knife. The instrument of death penetrated to the left and a little below the umbilicus, and passing upward, and to the right, inflicted an external wound of about four inches, and, as proved by the post-mortem examination, entered the stomach, producing a gash of an inch and a half in size. The Doctor, by the assistance of a friend, walked to his own residence, a distance of nearly a square. A physician was immediately called in, but before he arrived the Doctor pronounced his case a hopeless one. Wenrich was arrested, and is now lodged in the County jail, awaiting the deserts his crime merits. After suffering excruciating anguish the Doctor expired, in the hope of a blissful immortality, twenty-four hours after the deed was committed. On Wednesday, the 19th ult., his mortal remains were followed by an immense concourse of people to their last resting-place in Union Cemetery. Dr. P. R. Wagenseller was a native of Selins Grove, Pa., and the son of Dr. Jacob Wagenseller, deceased. After graduating with distinguished honors in Pennsylvania College, at Gettysburg, he commenced the study of medicine, and graduated in the University of Pennsylvania. As a physician Dr. W. took a high rank in his profession. It is no exaggeration to affirm that he had but few peers and no superiors in his profession in the part of the State in which he lived.

Bogus Medical Diplomas Still.

At the instance of the Spanish Consul, Mr. R. Balomina, Mayor Stokley has ordered an investigation in respect to the character of a medical diploma which had been presented to the Consul for his signature by residents of Cuba, it being required that he should certify to the existence of the college in order to give the diplomas legality either in Spain or Cuba. The suspicions of the Consul had been excited by the fact that five diplomas had been presented for his signature within a month, and at a time of the year when they are not usually given. The diplomas all bore upon their face the name of the "American University of Philadelphia," and upon Dr. Hodge, of the University of Pennsylvania, being consulted, he was understood to say that he did not know of any college having that name in this city. The Mayor placed the matter in the hands of the detectives, who found that the individual who held the diploma and solicited the Spanish Consul to affix his certificate to it had gone out of the State, if not out of the country, and no process that can be issued has power to compel his attendance as a witness beyond the jurisdiction of the courts of this county. Captain Heins, of the detective force, has obtained the Acts of Assembly relating to the American University of Philadelphia, and will proceed in the matter to which his attention was directed when the oral testimony relating to the diploma is obtained. It is alleged that four diplomas were obtained by residents of Cuba who could not speak the English language, three

of whom had been in the country less than a month, and the fourth less than two months, but none of the persons who presented them at the Consulate office are now within reach.

Cholera.

IN EUROPE.

Early in August a decided increase in cholera took place in Gallicia and Hungary. In Hungary, from July 15th to August 1st, there were 41,673 cases, of which 18,139 recovered, and 15,855 died. In Pesth, on August 2d, there were 88 new cases, making with those already under treatment, a total of 307, of whom 55 recovered, and 36 died. On the 3d, there were, including 87 new cases, 303 cases under treatment; among these there were 35 recoveries and 37 deaths. Three medical men, Drs. Ligetby, Munkacsy, and Maurer, have lately fallen victims to the disease in Hungary. Two cases of cholera are reported on August 6th, to have occurred in Stettin. The first case of this disease occurred in Königsberg, on July 6th; from that day to the 22d, there were 6 cases; after that, the disease spread rapidly, so that up to August 5th 164 cases were officially reported, with 85 deaths. At the latter date from 20 to 25 new cases, and 10 or 12 deaths, were occurring daily; and the disease did not appear to have reached its greatest intensity. In Dantzig, on August 4th, there were in the town 33 cases with 24 deaths. Several cases had also occurred in the surrounding country districts. At the mouth of the Vistula, there were 105 cases, with 38 deaths. Among the Polish raftsmen there had been 76 cases.

IN AMERICA.

Cases of cholera are reported from Western Kentucky, Southern Illinois, and elsewhere, but the epidemic seems decreasing.

Baby Farming.

A shocking case of "baby farming" was brought to the notice of the Special Sessions (New York), the prisoner at the bar being a woman named Sarah Coates, of 205 East Sixty-third street. Neighbors and others testified to the fact that she frequently kept a little six-months' infant lying in her back yard, exposed to the rays of the sun; sometimes the infant would remain there all day without nourishment. This child died on the 9th of August, and another in the keeping of the same woman died on the 24th, also from neglect and inhuman treatment. Their bodies were reduced to mere skeletons, and were almost black from being exposed to the sun. One of the children, it seems, belonged to the Circassian woman connected with Barnum's Museum; the other belonged to a Mrs. Hoger. A Mr. Doyne said the little creatures, even before death, "looked like boiled meat," and that he had often remonstrated with the woman, in vain. For the defence the woman alleged she had put the children in the yard "for the benefit of their health." The Court sentenced her to the penitentiary for three months, and she was led away, hysterically protesting her innocence in a flood of tears.

Yellow Fever.

The yellow fever has continued with great intensity at Shreveport, La. This town is situated on the west bank of Red river, in the northern part of Louisiana, about three hundred miles by land northwest of Baton Rouge, and about thirty miles below the "Great Raft," which is the limit of navigation for large steamboats. It is a thriving town, and previously to its present isolation had daily communication by water and railway with New Orleans and all parts of the country. A large business has been carried on at Shreveport, as it is advantageously situated for the shipment of cattle from Texas, and of cotton from Louisiana. The population is about 4607, of which 2439 are white and 2168 colored. No special local cause has been proven; the town is not worse situated than many others in the vicinity.

A Pre-Historic Skull.

The Osage Mission (Kansas) *Journal* gives an account of a late discovery near the western line of the county. It is a human skull imbedded in a rock, and was brought to light by blasting. Dr. J. C. Weibley, of Osage Mission, thus describes it:—

"It is that of the cranium of the human species, of large size, imbedded in conglomerate rock of the tertiary class, and found several feet beneath the surface. Parts of the frontal, parietal and occipital bones were carried away by explosion. The piece of rock holding the remains weighs some 40 or fifty pounds, with many impressions of marine shells, and through it there runs a vein of quartz, or within the cranium crystallized organic matter; and by the aid of a microscope presents a beautiful appearance."

Remarkable Rain-Fall.

Rev. J. Avery Shepherd, in charge of the Observatory at Ellicott City, Md., writes to the Smithsonian Institute that on the 13th of August last, there fell in that vicinity 11½ inches of rain in twenty hours, or 7800 barrels of water to the acre. This is one of the most remarkable rain-falls on record.

—The Board of Physicians of the Children's Home of Wheeling, West Va., of which the late Dr. Cummins was a member, have appointed Dr. J. C. Hupp to fill the vacancy occasioned by Dr. Cummins' death. The Directors of the Home have notified Dr. Hupp that they "heartily approve" the selection and request his acceptance, and the Doctor has accepted accordingly. The Board is composed of four physicians chosen from the oldest practitioners in the city, who give their services gratuitously.

Cobra Poison a Ferment.

Cobra Poison has been analyzed and found to consist of carbon, .46; nitrogen, .13; oxygen, .325; sulphur, .025; the rest of hydrogen; this, as M. Dumas remarks, is exactly the composition of beer yeast, and supports the idea that the cobra poison is of the nature of an animal ferment.

—Dr. William C. Tilden has resigned his professorship in Howard University, Washington, and accepted the somewhat novel position of chemist in the office of the Erie Railroad in New York City, at a salary of $3000 per annum.

—The cities of Northwestern Pennsylvania are having a lively competition to secure the location near them of the new insane asylum.

—Dr. Henry White, one of the oldest physicians and apothecaries of Boston, was killed on Thursday evening, September 11th, by falling down the stairway of his shop.

—Dr. J. William White was, on Saturday last, elected resident physician of the Eastern Penitentiary, in place of Dr. Bullard, resigned.

—A Medical Bureau is about being established by the Erie Railway for the free treatment of persons injured by accident.

QUERIES AND REPLIES.

Nasal Catarrh.

Dr. J. B. L., of Ind.—Fleming's pamphlet on nasal catarrh is the most recent monograph.

American Syringe.

Subscriber.—The American Syringe is manufactured by various parties. There is no exclusive right to it in this country, we understand.

Dr. J. S., of Tenn.—We fail to see the point of your inquiry. The case in question was one of artificial delivery. The puerperal condition may not in justice be termed a disease.

OBITUARY.

DR. WILMER WORTHINGTON,

Formerly member of the Pennsylvania House of Representatives, and Speaker of the State Senate, died at West Chester on Thursday, September 11th, in the seventieth year of his age. He was at one time President of the State Medical Society, and of the Chester County Medical Association. He was a Democrat previous to the Kansas agitation, but on the outbreak of the war became a Republican, and was elected a member of the Legislature by the Republican party. He was appointed by President Grant, Surveyor of the Port of Philadelphia, but resigned from the office to become Secretary of the Board of State Charities, which office he held at the time of his death.

MARRIAGES.

AIKEN—HUNT.—On Thursday, September 4th, in New York, by the Rev. Dr. Burchard, Henry M. Aiken, of Boston, and Mrs. Amelia J. Hunt, daughter of Dr. William Elmer, of New York.

ARRASTIA—OPPENHEIM.—On Tuesday, August 12, 1873, in Santiago Church, by the Rev. Palma, Dr. Adolfo de Arrastia, from Havana (Cuba), and Julia Oppenheim, eldest daughter of W. Oppenheim, Esq., of New York.

BARROWS—STEVENS.—In Newport, 4th inst., at Kay Chapel, by Rev. I. P. White, D. D., Horace G. Barrows, M. D., of Boston, and Sarah Norman, daughter of Philip Stevens, Esq., of Newport.

BULLARD—WELSH.—On the 4th instant, at the Cathedral, by the Rev. Father Elcock, Dr. E. C. Bullard and Elizabeth H., daughter of J. R. Welsh, Esq., all of Philadelphia.

COLTON—NEELY.—On September 10th, at Emmanuel Church, Brooklyn, N.Y., by Rev. Asa S. Colton, assisted by Rev. H. B. Walbridge, D.D., Rev. Joseph S. Colton, of Beatrice, Neb., and Sophie, daughter of the late Orlando Neely, M.D., of New York.

CROPPER—BLIVEN.—On Monday, September 1st, at the residence of the bride's parents, in Brooklyn, E.D., by Rev. Dr. A. H. Partridge, S. Preston Cropper, of Philadelphia, and Ellen J. Bliven, daughter of Dr. J. P. Bliven.

GILBERT—CASE.—In Brooklyn, on Monday, September 1st, 1873, by the Rev. J. G. Vanslyke, Dr. C. E. Gilbert, of Jamaica, and Miss Lillie E. Case, of Poughkeepsie.

GREGORY—SIMS.—At Newport, R.I., September 2, by Rev. Dr. Henry Potter, Charles E. Gregory and Fannie Marion, daughter of Dr. J. Marion Sims.

GRAINGER—LE BLANC.—On Thursday, September 4th, at St. James' Cathedral, Brooklyn, by Right Rev. Bishop Loughlin, assisted by Rev. J. Kiely, W. H. Grainger, M. D., of Boston, and Mary A. Le Blanc, of Brooklyn.

LINDRIDGE—SEGUI.—By the Rev. W. M. Willian, on Tuesday, September 2d, Edwin F. Lindridge, M. D., of England, to Miss Joanna Seguí, of Brooklyn.

JONES—MORAN.—In New York, on Wednesday, September 3d, at the Church of the Transfiguration, by the Rev. R. W. Howes, Jr., E. Lee Jones, M. D., and Martha Adams, daughter of Charles Moran.

TILTON—STEELE.—On Tuesday, September 2d, 1873, at the residence of the bride's parents, by the Rev. W. W. Halloway, Jr., Dr. Henry R. Tilton, United States Army, and Miss Anna M. Steele, daughter of Mr. Henry Steele, of Jersey City.

DEATHS.

ALFRED.—At his residence, in Galesburg, Mich., August 16th, Dr. M. W. Alfred, aged 63 years.

BLISS.—On Friday, September 5th, at the residence of Thomas A. Colt, Orange, N. J., W. W. Bliss, M.D., aged 51 years, 6 months and 3 days.

COCKE.—In Bellville, Austin county, Texas, Aug. 6th, Dr. William Irby Cocke, aged 43 years. Dr. Cocke was a graduate of Jefferson Medical College, and practiced Medicine in Bellville eighteen years.

GERMOND.—On Wednesday, September 10th, Myra Jane, wife of Rev. Philip Germond, and daughter of Dr. R. F. Hibbard.

MACKENZIE.—At her residence, in Wellsville, O., on the 14th of August, of consumption, Mrs. Lydia S., wife of N. K. Mackenzie, M. D., in the 49th year of her age.

SMITH.—At Columbus, Nevada, on August 14th, 1873, after a short illness, Dr. Fisher Coleman Smith, in the 47th year of his age.

WARD.—At Belleville, N. J., September 3d, Mrs. Caroline Brown, widow of the late Dr. Samuel L. Ward, aged 77 years.

WARD.—At Detroit, September 1st, of apoplexy, Thomas C. Ward, son of the late Dr. Thomas Ward, of New York.